Establishing University Distance Learning Across National Boundaries: Trends and Issues

Colin Latchem
Open Learning Consultant, Australia

INTRODUCTION

Globalization, satellite communications and the Internet are shrinking the world. Countries are increasingly aware of their standing in relation to other nations and where their economies and human capital need to be in the years to come. None can afford to be left behind in the race into the knowledge-based economy.

These developments have enormous implications for our universities. Until fairly recently, they served relatively circumscribed geographical areas. Crossing international borders might be seen as appropriate for some of the students, but not for the institutions themselves. Now, open and distance learning and information and communications technology (ICT) offer powerful new possibilities for greater access and equity, 'virtual mobility' for staff and student, inter-institutional and international collaboration and, in the eyes of some, commercial gain

The following paper discuses these trends and issues and provides examples of initiative under way in its Case Studies. It shows that providing distance education across national boundaries calls for far more than the mere fostering of technology development. It requires new forms of organization and collaboration, an internationalized curriculum, innovative teaching and learner support, sensitivity to cultural differences and, above all, a new vision and mindset.

DISTANCE LEARNING ACROSS NATIONAL BOUNDARIES

The Commonwealth Secretariat (1985) has suggested that internationalizing distance education involves a continuum of activities ranging from 'low risk' initiatives providing 'modest benefit' to 'high risk' undertakings that can bring 'major benefit', as follows:

Low risk—modest benefit

Sharing information
Exchanging experience.
Exchanging advisers and consultants.
Collaborative staff training.
Accepting each other's students.

Acquiring and / or exchanging distance education materials.

Collaborating on evaluating distance education materials.

Collaborating in adapting distance education materials.

Cooperating on developing courses and programs.

Establishing credit transfer arrangements.

Creating a common open learning system.

High risk—great benefit

An increasing number of universities around the globe are now:

- Using technology to share in delivering some courses and programs offshore.
- Exporting courses and programs—for reasons of profit or strategic advantage or, less frequently, for international aid and development purposes.
- Establishing international alliances, partnerships and other forms of virtual transnational community in which staff can share research findings, teaching expertise, courses and courseware, and students can learn collaboratively via satellite and the Internet.
- Collaborating with pan-global organizations to use ICT to help bridge the digital divide, reduce educational disparities, and improve socio-economic development in poorer nations.

In so doing, they use a range of media: print, audiotapes, videotapes, audioconferencing and videoconferencing and the Internet. They use the Internet to deliver the course content and for teaching, tutoring, assessing assignments and providing feedback to the learners. They use audio and online conferencing for collaborative learning and streaming video, web cameras and satellite-delivered videoconferencing to provide the visual dimensions to learning. The exponential growth in Web-based resources makes it easier for students to track down, analyze, verify and utilize information and ideas from anywhere in the world. They are no longer locked into limiting, linear 'one size fits all' courses of study using time-honoured 'transmission' methods of delivery. Instructional design using the principles of constructivist learning and Web-based 'learning objects' (see Downes, 2000) allows learners the freedom to select, contextualize and apply their learning according to their individual needs and interests. The emphasis is on dialogue, encouraging learners to engage in problem-solving and adopt a reflective, interpretative approach to their learning through a mix of self-directed, peer-directed and teacher-directed activities (Laurillard, 2002).

Case Study 1—The University of Melbourne's Institute of Land and Food Resources Global Seminar

The University of Melbourne's Institute of Land and Food Resources (ILFR) has been involved in an award-winning international distance education program studying global warming, biodiversity, water quality, food security and population demographics. ILFR students participate in real-time dis-

cussion and debate on these topics with students in seven other universities around the world through a program called the Global Seminar. The Global Seminar participants examine topical environmental issues related to food and agriculture through case studies developed by an international consortium of eight universities: The University of Melbourne, Cornell University; Wageningen University and the Open University of the Netherlands; the Swedish University of Agricultural Sciences and Uppsala University in Sweden; Zamorano University, Honduras; EARTH University, Costa Rica, and Acharya N G Ranga University in India. The program uses a range of technologies, including videoconferencing, Web-based conferencing and email.

Case Study 2—Curtin University of Technology, Western Australia

Curtin University of Technology in Perth, Australia, has used videoconferencing for collaborative learning by business students located in Singapore and Perth. The learning sessions took the form of role plays in which the Australian and Singaporean students were two companies exploring explored the possibility of a joint business venture in the People's Republic of China. The two groups researched the possibilities independently, exchanged emails and then held a series of meetings by videoconference. The exchanges revealed differences in business and personal values and practices. For example, at first, the Australian students seriously underestimated the Singaporean students' capacity to plan carefully for the meetings and seek every strategic advantage while on the other hand, the Singaporean students misinterpreted the Australian students' casualness in conducting the meetings and underestimated their resolve and capacity to 'think on their feet'. Both sets of students learned invaluable lessons about conducting business with people of another culture through international experiential learning that could only be provided through ICT.

Case Study 3—Virtual University of the Technological Institute of Monterrey

The Technological Institute of Monterrey has 26 campuses in 25 Mexican cities and a yearly enrollment of 90,000 students. It has established the Virtual University to deliver undergraduate, postgraduate and training programs throughout Mexico and nine other countries in Central and South America. The Virtual University has satellite TV networks linked to 1,393 reception sites (areas dedicated to satellite classes) and learning centres (for individual and collaborative learning). It also uses the Internet. Wherever appropriate, it links with institutions in other countries. For example, it offers live seminars conducted by professors at Stanford, Purdue, MIT, the American Graduate School of International Management, Glendale, Arizona and Autonoma de Barcelona in Spain. Its courses use a mix of instruction ('talking heads' via live satellite broadcast), self-study (through study guides, textbooks, the Internet and research) and collaborative learning (via the Internet and at the learning centres). The programs are developed with well-defined objectives and well thought-through instructional design, and quality is assured through strong feedback and evaluation. One of the Virtual University's

master's degrees is in educational technology, offered jointly with the University of British Columbia, Canada and taught in both Spanish and English.

Case Study 4—The Virtual University of the Semi-Arid Tropics and the CGIAR Open University

Agriculture is the cornerstone of development in poorer nations where more than 70% of people depend upon the land for their livelihood. Agricultural development must be achieved in ways that preserve the productivity of the natural resources. Agricultural research is one means of improving agricultural methods while achieving sustainability

The International Crops Research Institute for Semi-Arid Tropics (ICRISAT) and MS Swaminathan Research Foundation (MSSRF) in India are planning a Virtual University of the Semi-Arid Tropics (VUSAT). VUSAT will not award degrees but use ICT and other communication tools to deliver critical information to farmers in rainfed areas of the semi-arid tropics. VUSAT is being organized by ICRISAT with support from the Vancouver-based Commonwealth of Learning (COL) as a broad-based coalition of international, regional, national, state and local organizations to develop climate literacy and drought preparedness among rural communities, development workers, service providers, policy makers, and other strategic sectors. It will also communicate information on climatic trends and methods of drought management for community mobilization and disaster preparedness. In its first phase, it will link the expertise of the Indian Council for Agricultural Research (ICAR), Indian Meteorological Department (IMD), Indian state and open universities, Commonwealth of Learning (COL) and the African Virtual University (AVU).

In a parallel development, the Consultative Group on International Agricultural Research (CGIAR), chaired by a Vice-President of the World Bank, plans to create the CGIAR Open University (CG-OU). The CG-OU will complement and supplement the work of VUSAT by offering MSc and PhD programs to develop agricultural research capacity in developing countries. CGIAR already has a network of centres providing training and training materials to develop research capacity in developing countries. These will used or re-engineered by the CG-OU and made available for full or partial use by accredited universities and open universities. In the longer term, CG-OU may offer its own accredited programs. A business plan for the CG-OU initiative is being developed and in addition to English, it is envisaged that the materials will need to be produced in French, Arabic, Chinese, and Spanish in order to reach more participants and attract a wide range of donors.

The economic process known euphemistically as 'globalization' is now reaching into every aspect of our lives. What it is doing in effect is transforming every activity and every resource into a 'com-

modity'. This is equally the case with international distance education and the expansion of free trade in educational services is being promoted, especially by the most obvious early beneficiary, the United States (Duke, 2002). In March 2003, countries were required to submit to the World Trade Organization (WTO) their offers of those service sectors, possibly including educational services, which they wished to be included in the current round of the General Agreement on Trade in Services (GATS). As Hawkridge (2003) observes, whether or not legislation under GATS affects trade in education in the short term is not the fundamental issue, because the globalization of education proceeds apace.

The global drive to deregulate education and training raises important questions about quality. As Hawkridge (2003) notes, the World Bank (2002, p133) raises two important questions to which the answers are not immediately apparent: How can national authorities exercise quality control over foreign education and training providers operating in their countries? How will rulings by the WTO and decisions under GATS affect national governments in exercising this control?

There is a very real danger that the free-traders will further the interests and profits of those who already have the knowledge, the power and the resources rather than 'level the playing field' in response to inequality and injustice. For all the rhetoric about the need for education to be 'demand driven' and 'customer focused', international distance education is often being treated as an 'export business'. Perraton (1997, p6) observes that 'market forces, the pursuit of economic competitiveness and the financial needs of the universities all seem to be playing a stronger role than academic values of international cooperation and exchange'. These are unfortunate trends, given the enormous need and potential for global collaboration in educational, social and economic development. In 85% of the world it is impossible to access higher education through conventional means. Denied educational and employment opportunities, people are either caught in the poverty trap or forced to migrate elsewhere. This must surely be one of the greatest challenges facing the world today. It has enormous implications for our universities.

Fullan (1993) suggests that curriculum development for internationalization should focus on 'our connectedness to the world' and prepare students, both domestic and foreign, for their professional and social participation in international and multicultural contexts. However, the current preoccupations are clearly more with the commercial and technological potential than the internationalization potential.

Public universities are jumping onto the online bandwagon and private providers are trying to cream off the more lucrative courses and fee-paying students. The desire for profit or concern to protect its traditional markets is causing higher education to become a 'service industry'. As a consequence, distance learning is being 'commodified' and 'mass produced' rather than as it should be, 'customized' and 'individualized'. Duke (op cit.) suggests that what is now dominating the higher educa-

tion agenda is not 'content' and 'curriculum' but 'communication' and 'commercialization'. Again, these are unfortunate trends, given the enormous need and potential for learner-focused lifelong learning all across the globe.

However, a number of institutions and faculty are doing valuable work in providing innovative, equitable, collaborative and responsive international distance education. Some are also helping to enhance the educational resources available, and increase access for a broader range of learners.

Case Study 5—The University of Southern Queensland

The University of Southern Queensland (USQ), like many other Australian universities, USQ has a rapidly growing international program. It serves students from over 80 countries and these students can choose from three modes of study: on-campus (in Toowoomba); external (studying the same academic programs in their home country); and a combination of these and USQOnline (studying through the Internet). USQ provides Local Support Offices for its distance education students in a number of countries. In those countries where there are no Local Support Offices, the USQ's International Office helps students with enrolment, contacting academic staff, collecting and dispatching assignments and connecting with other students studying the same programs.

Case Study 6—UK Open University

The UK Open University (UKOU) with a total enrolment of about 165,000 students, serves some 30,000 students each year outside the UK, mainly in Western Europe. Its Business School alone has 30,000 students in 38 nations, including 2,500 studying for the MBA degree.

Most overseas UKOU students study at a distance in English and take UKOU examinations to obtain a degree from the UKOU, but franchise arrangements and accreditation agreements with a large number of institutions in the UK and overseas also help to extend the UKOU's reach. Through UKOU Worldwide, overseas partners can enter into course licensing agreements with the UKOU and then use the UKOU courses and materials for their own award programs. UKOU Worldwide also enables overseas students to enroll in UKOU courses and receive UKOU materials and tutorial support and learner support from local partner institutions. Through the UKOU Validation Services (OUVS), UKOU Worldwide also allows partner institutions unable to award degrees themselves to reach accreditation, and it also sells stand alone UKOU course materials.

A number of international and national organizations are encouraging and supporting the use of distance education and ICT across national borders and to help developing countries. These include:

- The World Bank: The Information for Development Program (InfoDev) helps developing

countries share in the benefits of ICT and the information economy <www.infodev.org>. Global Distance EducationNet (Global DistEdNet) offers a knowledge guide on distance education for human development <http://wbweb5.worldbank.org/disted/>. Global Development Learning Network (GDLN) is a global communication system designed to share knowledge in combating poverty <www.gdln.org>

- UNESCO: This body undertakes research and analyses, provides training and supports initiatives in distance education and ICT in partnership with other international and national agencies <www.unesco.org>
- Commonwealth of Learning (COL): This intergovernmental organization was created by the Heads of Government of the 54 Commonwealth countries to encourage, support and share distance education knowledge, resources and technologies, and particularly in the developing countries of the Commonwealth <www.col.org>
- The Global Knowledge Partnership (GKP) is a worldwide network of organizations committed to harnessing the potential of ICT for sustainable development. Its members comprise governments, donor agencies, private sector companies, civil society, networks and international institutions <www.globalknowledge.org>
- The European Union (EU): The EU recognizes that reduced trade barriers and increased economic activity require increased educational integration, particularly between the 'old Europe' and the 'new Europe'. It recognizes that distance education is a major strategic tool for human resource development. and it offers online portals on learning opportunities and funds e-learning research and development.
- The European Association of Distance Teaching Universities (EADTU) <www.eadtu.nl>, European Distance Education Network (EDEN) <www.eden.bme.hu> and other EU associations, consortia and networks also provide training programs, exchange courses and materials and support collaborative distance education and e-learning research and development across Europe.
- EuroPACE 2000 is a European network of universities, research institutions, private enterprises, professional associations and public authorities that provides distance education and technological expertise, operates a credit service and supports moves towards a Virtual University for Europe.
- International Council for Distance Education (ICDE): This is a global professional organization of institutions, associations and other agencies involved in distance learning <www.icde.org>.
- International Centre for Distance Learning (ICDL): This online database at the UK Open University promotes international research and collaboration in distance learning <www-icde.open.ac.uk>
- International Research Foundation for Open Learning (IRFOL): This research organization in Cambridge, UK, conducts research in association with other partners to inform open and

distance learning policy-making, particularly in developing countries <www.irfol.edu.uk>

- Japan International Cooperation Agency (JICA) is responsible for the technical cooperation of Japan's Official Development Assistance aimed at developing human resource capacity in developing countries through educational research, development and services
- LearnLink: This US Agency for International Development (USAID) project is operated by the Academy for Educational Development (AED) in Washington and supports the development of telecentres, e-commerce, e-government and other ICT-based initiatives in developing countries <www.learnlink.aed.org>
- Asian Association of Open Universities (AAOU): This association of open and distance teaching universities ranging from Turkey to Taiwan aims to improve professional standards and cost-effectiveness by exchanging management information, teaching materials and research and by cooperating with similar regional and international bodies around the globe <www.aaou.net>

Case Study 7—JICA and the University of the South Pacific

The Japan International Cooperation Agency (JICA) is engaged in a collaborative project with the University of the South Pacific (USP) aimed at strengthening human capacity in the use of ICT in the Pacific and providing more students with access to improved educational services by enhancing the ICT capacity of USP. USP is the premier provider of higher education in the Pacific region. It is supported by 12 member countries and is already a major provider of more conventional forms of distance learning.

The ICT Capacity Building @ USP project is scheduled to run from July 2002 to June 2005. It has three components:

The Computing Science (CS) component aims to train ICT engineers who can support the technology for the other two components by increasing the number of students enrolling in the CS courses and upgrading the current CS courses. It will offer face-to-face and ICT-based and distance learning on Linux and the latest management and programming languages for networking. It will also offerinternationally recognized certification such as Red Hat Certification Engineering, and courses from other universities. Japanese experts will provide model lectures and USP counterparts will be sent to Japan to enhance their knowledge and skills in ICT.

The distance learning component aims to help increase the number of USP courses on offer. It will do this by providing USP staff with on-the-job training and short and long term training in e-learning in Japan, developing model online programs, enhancing the satellite-based USPNet (also aided by JICA) and developing a powerful multimedia database (MDB) system to manage the digital educational re-

sources and share and manage the systemic development of distance learning courses (http://mmsvr.usp.ac.fj).

The ICT research and training component will address the issue of ICT for socio-economic development. It will establish a system for ICT research through short-term training and raise awareness and encourage appropriate use of ICT for, e.g., e-learning, e-health, e-government and e-commerce in the South Pacific nations. It will enable USP to have internationally recognized researchers on its staff who can conduct research into practical applications of ICT and help Pacific communities embrace these new technologies and methodologies. (email: jica@usp.ac.fj)

Case Study 8—JICA and the University of the South Pacific

The US organization LearnLink is collaborating with organizations in Ghana and Paraguay to establish Community Learning Centres (CLCs). These CLCs provide communities in disadvantaged rural and urban areas with access to ICT, education and training, support for local enterprise, and government and other information services. Locally-appointed LearnLink advisors work closely with government, non-government and community agencies and carry out needs assessment to ensure that the centres and the services they provide are relevant to the communities' needs. The CLC staff, who may be salaried or volunteers and drawn from the local communities, are trained in managing the centres, providing the technical services, creating environments conducive to learning, helping users to make the most of the technology, resources and services, and monitoring the use and impact of the centres. To ensure financial sustainability beyond the period of the donor's grants, affordable fee-for-service systems are developed and community involvement and private sector collaboration are actively promoted

Case Study 9—African Virtual University

The Australian Government and the World Bank have embarked on a US$750 million Virtual Colombo Plan designed to reduce global poverty and use ICT and distance education to improve education and information access in developing countries. Australia has internationally recognized strengths in distance education and the Virtual Colombo Plan provides a platform for Australian educational providers, researchers and technology companies to share their knowledge and skills with partners in developing countries. A three-stage program is planned. The first stage will include teacher education, education system policy development, and providing the infrastructure for distant learning. The second stage will provide training for developing country policy-makers. The third stage will provide training and support for staff and students in higher education. The planned activities include teacher education and school management in PNG, Indonesia and other countries; expanding the World Bank Global Development Learning Network in Asia and the Pacific; providing ICT-based

training through 200 virtual scholarships; and using Australian university courses and materials to improve the capacity of the African Virtual University <www.avu.org>. The AVU was originally conceived as an international ICT-based portal allowing engineering, science, computing and business students in sub-Saharan Africa to access lectures by overseas professors and an online international library and database. It currently serves students and researchers at 31 partner institutions in 17 African nations.

PLANNING FOR GLOBAL DISTANCE EDUCATION

There are many critical questions to be addressed in planning for global distance education, for example:

- What needs to be taught and learned internationally?
- How can the courses widen and enrich the experience of the learners by addressing the issues of internationalization and multiculturalism in courses, resources and interactions?
- How can ethnocentricity and racism be combated?
- How can the courses represent the wealth of cultural, ethic, social and linguistic diversity in the learners?
- How can the courses accomnodate the diversities of circumstances, assumptions, beliefs, practices and behaviours of different societies?
- How can the wealthy nations learn about Third World conditions and developing countries learn from the more advanced countries?
- How long and in what form should the courses be?
- Who and where will the teachers be?
- Who and where will the learners be?
- What new forms of student admission, credit recognition, monitoring, evaluation and quality assurance will be needed and how can these be provided?
- What methods and media will be used to deliver the courses?
- Should the teaching and learning be asynchronous or synchronous?
- What learner advisory, support and mentoring services will be needed and how can these be supplied?
- What accreditation will be given and how will international recognition be gained for this?
- How will such issues be managed and by whom?
- Who owns the intellectual property of the content and controls the curriculum and the pedagogy?

ACHIEVING SUSTAINABILITY

There is no guarantee that international distance education will prove to be sustainable for every institution and for every course. Nor is there any guarantee that the initiatives featured in the Case Studies in this paper will achieve their aims or even survive. Long term sustainability depends upon achieving the right balance between three critical and inter-related issues:

- Widening access.
- Reducing costs and improving cost-effectiveness.
- Achieving quality in the courses, delivery and services.

Achieving such a balance is not easy. Increasing the numbers of students enrolled may mean increasing the student-to-teacher ratios or teaching loads, using inexperienced or less well-qualified teaching assistants, and / or reducing contact times and interaction—in all of which cases quality will suffer. Improving quality may call for heavier investment in staff time and technology and higher levels of student-teacher interaction—in which case costs will soar. And constraining costs may lead to lower quality graduates.

Distance education is often looked upon as a way of reducing educational costs. However, the jury is still out on whether this is always the case and an over-emphasis on cost reduction is a surefire way of limiting the potential of distance education. Mayadas (2001) suggests that online education can be less expensive than on-campus education, although possibly only by 20% or less. On the other hand, Bates (2000) observes that, contrary to the views of some politicians, government officials, senior managers and the business community, the introduction of technology is more likely to increase costs than reduce costs, at least in the short term. And Karelis (1999) argues that technology-mediated instruction is more expensive unless enrolments are large, and that for enrolments to become large, certain changes need to be made to accepted practice such as employing lower-paid teaching assistants—something that runs counter to the aim of using distance learning to provide better education, improved interaction and ongoing student support.

Distance learning typically incurs significant capital costs, lower recurrent costs and a different balance of fixed and variable costs. However, a full cost assessment of international distance education not only requires attention to the more obvious capital, development and delivery costs, Account also needs to be taken of the token payment or unpaid extramural work by the staff involved in developing, delivering and administering the programs, the support or facilities to be provided by the local educational personnel, and the direct and indirect costs to the students, who may be required to attend weeklong residentials or evening courses or meet the costs of expensive ISPs and long-distance calls. Ignoring or underestimating such costs may result in a failure to cover the full operational costs of e-

learning.

In considering the globalization of distance education it is important to remember that some ventures have failed, some are yet to show that they can be profitable, some have relatively small enrolments and some have not yet disclosed how they are doing.

CULTURAL AND PEDAGOGICAL FACTORS

Hanna (2000) suggests that the most significant barriers to international distance education may turn out to be differences in culture and teaching methods. Critics of globalization argue that cultural diversity and globalization are incompatible and there is a danger that common curricula and resources may help to destroy national and local identities. Goldsmith (1993) declares that there is no surer way of destroying a culture than through education, and that countries with a legacy of colonialism or racism may reject anything they perceive to be paternalistic or culturally or educationally imperialist. Every national culture is defined by certain values, perceptions of reality, political peculiarities and points of intransigence. It is therefore important that global distance educators are sensitive to cultural and educational differences, aware that knowledge is never neutral, look at the cultural issues embedded in their courses or materials, and avoid imposing the values and practices of one society onto another.

Canadian distance educator Barbara Spronk (1998) suggests that international distance educators need to learn to be able to see the world through 'two pairs of eyes', theirs and those of the other culture they are working with. South Pacific distance educators Claire Matthewson and Koni Thaman (1998) suggest that cross-cultural understanding comes through developing the 'navigational skills' to work through cultural contexts, examine assumptions and arrive at appropriate courses of action. African writer and researcher John Senyo C. Afele (2003) suggests that information and learning networks must be both horizontal (localized) and vertical (globalized). He argues that that all nations, rich and poor, can gain from incorporating the knowledge of other countries and cultures into their own thoughts and actions.

There have been innumerable studies into teaching with technology and the generally accepted conclusion is that teaching with technology does as well as, or even better than, face-to-face teaching. However, the real challenge is not to provide technology-based teaching that is as good as that in the traditional classroom but to provide *better* or *different* learning outcomes. Here the technology can make unique contributions—for example, the Web enables the learner to seek out, analyze, evaluate and apply new knowledge. So the critical questions to ask are: What kinds of learning are needed? What methods will best meet these needs? What technology will support these methods?

The philosophy that guides distance education methods and technology applications is that of

transforming the learning from teacher-dependent (where the content and course of study is determined by faculty) to learner autonomy (where the learner can operate on his / her own) or interdependence (where the learners interact with faculty or with each other). Teaching internationally, the learners' experiences and expectations of learning have to be taken into account. For instance, a generalized didactic lecture may be regarded as a total waste of time by a learner who only wants to discuss specific problems. On the other hand, a self-directed constructivist approach may be totally puzzling to a learner whose only experience to date has been that of 'the teacher as guru' and group learning in the classroom.

COLLABORATION AND CONSORTIA

Institutions are finding it strategically beneficial to collaborate with other institutions across the world, both on a university-university and a university-corporate basis. They are doing this to position themselves globally and to take advantage of opportunities that would be too great for any institution on its own.

Collaboration in international distance education helps to spread the risk and enables organizations to take on board new ideas and new practices. It allows institutions to get round regulatory issues that limit the activities of 'foreign' educational providers. It allows international curricula and courses to be developed and enables graduates to operate in a global professional workforce with internationally portable credentials. It provides internationally recognized branding and benchmarking which are important for enrolment, instruction, assessment and certification. It helps with copyright, intellectual property and quality assurance issues. It helps to achieve borderless professional networks. It also helps institutions to become less self-referring and inward looking, participate in an increasingly interdependent world, and gain better global understanding.

In public-private partnerships, the corporate partners may be publishers, broadcasters, carriers, software producers, speculative investors or others who can provide the means of delivery, marketing expertise and start-up capital. The institutions bring to the enterprise their courses, teaching and learning expertise and accreditation, intellectual capital and international academic linkages. Working symbiotically, the partners aim to provide internationally franchised, high quality higher education in the world's markets.

In most countries, higher education institutions have to be enabled by statute to offer award degrees, doctorates or diplomas. Private sector providers find it almost impossible to gain recognition as degree / certificate granting institutions. They may also encounter limitations to direct investment by foreign providers (for example in China) or come up against government monopoly in higher education, high government subsidization of the local institutions, or government concern to protect against

low quality cross-border education providers, as in Japan (Larsen, Martin & Morris, 2002). Partnering with the universities enables the corporate providers get around these hurdles and particularly in regard to legitimization, where they gain by association with the status, reputations quality assurance and branding functions of the universities conferring the degrees.

Case Study 10—The CANDLE Project

The CANDLE project comprises 12 partners in 7 countries, sponsored by the European Union and focusing on the sharing of e-learning resources and in particular, learning objects and what makes them shareable and reusable. It examines technical issues (for example, interoperability standards), cultural issues (languages, learning styles, etc.) and organizational issues (credits, curriculum differences, etc.).

In 1999, the EUNICE network, a European network of telematics education <www.eunice-forum.org> developed a plan to encourage and promote the exchange of learning resources to improve quality and efficiency in education. The partners in this activity were the University of Karlruhe and University of) Stuttgard (Germany); University of Twente (Netherlands); Ecole Nationale Superieure do telecommunication—Bretagne and Institut National de telecommunication (France), British Telecom, Suffolk College, Institute of Education and University College London (UK): Norwegian Institute for Science and Technology; Politechnico Torino (Italy); and Universidad Polytechnica de Catalunya (Spain).

CANDLE is an information broker system that uses a courseware re-engineering methodology (CREEM) to ensure that the course components are smaller (granuralized), more manageable and more accessible and to develop a series of exemplary re-engineered courses that illustrates the methodological and technological possibilities. Authors collaboratively design and develop shareable, reusable course material, teachers and tutors share this material and exchange their experience of reuse; and learners work collaboratively across institutional and national boundaries.

Traditional material is converted to Web-based resources, instructor-centred pedagogies are replaced by more learner-centred methods, individual resources and activities (learning objects) are assembled into new courses through a process of 'aggregation' and student learning is improved by provision of a wider rage of course materials. Course structures are created, learning objects (digitally stored text, applets, pictures, video, audio, etc.) are added to or updated in these course structures, the learning objects are tagged with megadata and the courses or resources are uploaded or stored in the information broker.

Case Study 11—Universitas21

Universitas21 is a consortium of leading research-intensive universities: the Universities of Melbourne, New South Wales and Queensland in Australia, McGill University and University of British Columbia in Canada, The University of Virginia in the US, the Universities of Birmingham, Edinburgh, Glasgow and Nottingham in the UK, Lund University in Sweden, Albert-Ludwigs-Universitat Freiburg in Germany, Fudan University and Peking University in China, The University of Hong Kong, The National University of Singapore and The University of Auckland in New Zealand. The consortium has formed a joint venture with Thomson Learning to establish an online university called Universitas21

Global has its headquarters in Singapore. In 2003, it launched its first online course, an MBA. It also plans to launch a Master of Information Systems.

Global sees itself as uniquely positioned to capitalize on its members' international credibility, brand recognition and experience in using ICT to enhance teaching and learning. It will operate mainly in the Asia-Pacific. Its courses will cost about one third of their on-campus equivalents and the fees will be tailored to the purchasing power of the students' home currencies. For a US student, the MBA will cost $US19,500, for an Australian student, SUS12,500, and for an Indian student US$9,000. Global's programs will be reviewed and approved by U21pedagogica, a wholly-owned subsidiary of Universitas21.

Case Study 12—EuroPACE 2000

EuroPACE 2000 is a trans-European network of universities, research institutions, private enterprises, regional and professional organizations and public authorities. Its headquarters are in Belgium. Its aims are to provide access to European educational expertise; operate a European credit service (offering courses unavailable in particular universities); support the European scientific and professional community; achieve economies of scale and a sharing of resources; demonstrate and develop the potential of ICT in the European university of the future; and contribute to the realization of a Virtual University for Europe offering technical, logistical, pedagogical and administrative services where these are needed at the supra-institutional level. EuroPACE and its partners believe that such an alliance is needed for the strategic decision-making required to fully realize the full potential of the new technologies and methodologies.

The EuroPACE partners are the Groep T Leuven Institute of Technology, Katholieke Hogeschool, Leuven, Katholieke Universiteit Sint-Lieven, Katholieke Universiteit Leuven, Rijks-Universditeit Gent, Universitaire Instelling Antwerpen and University of Brussels (Belgium); Czech Technical

University in Prague; University of Kinshasa (Democratic Republic of Congo); Aalborg University (Denmark); Helsinki University of Technology, (Finland); University of Hagen-FernUniversitat (Germany); Aristotle University of Thessaloniki, Centre Francophone d'Etudes Superieures-Gallofones Epistimes and Technological Institute of Piraeus (Greece); University of West-Hungary; The Irish International University and University College Dublin (Ireland); Consorzio NETT UNO, Universita di Roma 'La Sapienze', and University of Bologna (Italy); Warsaw University of Technology (Poland); Technical University of Cluj-Napoca and Universitatea 'Politehnica' din Bucuresti (Romania); North Kazakhstan University (Russia); Technical University of Kosice (Slovakia); Slovenia Institute for Adult Education (Slovenia); Universidad Polytêcnica de Madrid and University of Castilla-La Mancha (Spain); Asian Institute of Technology (Thailand); University of Twente (Netherlands); Donetsk State University and Kharkov State Polytechnical University(Ukraine); Sheffield Hallam University (UK);, IMEC (Belgiu); CERN (Swizterland); The European Academy for Sciences and Arts (Austria); Societê Europêenne des Ingènieurs (Belgium); Centre National d'Enseignment à Distance (France); European Distance Education Network (Hungary); Lecado (Sweden); and European Lifelong Learning Initiative (UK).

University-university or university-corporate alliances may not always be that easy or that quick to put into operation. Duke (2002) notes that while some international consortia such as The Global University Alliance <www.gua.com> and UNext <www.unext.com> and some small 'clubs' of geographically-dispersed universities have been able to move fairly briskly into online operations, the fast-track ambitions of Universitas21 Global have been repeatedly frustrated by unsure partnerships within and beyond its university members.

Establishing such consortia or alliances requires an understanding of all of the cultural values and organizational factors involved. It also needs total agreement among all of the partners on how the enterprise is to differentiate itself from other global providers, how it is to be managed and marketed, how the respective crests and logos are to be used in the degrees awarded, what types of programs and services are going to be provided, how much funding will be required to establish and maintain the venture, who is to provide the start-up finding, and how the profits and other benefits are to be shared.

Offerman (n.d.) offers the following reasons for failure on the part of consortia and collaborations:

- Poor leadership.
- Failure to agree upon and clearly articulate the mission and goals of the enterprise.
- Differences among members over status, resources, ownership and commitment.
- Lack of a funding policy, which results in the consortium having to pursue short-term goals to justify funding rather than concentrate on long-term goals relevant to the overall members' needs.

- Limited institutional commitment and support.
- Incompatible or dysfunctional organizational structures (different missions, organizational structures, funding patterns and abilities to contribute can lead to incompatibility and frustration).
- Perceptions of ineffectiveness by members, funding agencies and communities.
- Suspicions about consortia legitimacy, costs, loss of autonomy, etc.
- Lack of student and other stakeholder support due to suspicions or perceptions of poor quality and low status.

CHANGING THE PARADIGM: SOME CONCLUSIONS

After carrying out a major international survey for The Commonwealth of Learning, Farrell (2001) reported that distance learning and ICT are now generally recognized as adding value to the more traditional models of delivery and that virtual learning now features in the planning and agendas of most higher education institutions across the globe. From their worldwide survey for the Australian Federal Government, Cunningham et al. (2000) concluded that ICT, global economics and global competition are propelling universities into collaboration and enterprise across international boundaries. Bates (2001) predicts that the various nations' university systems will develop in accordance with their particular needs and capabilities, that a few institutions will continue to value and provide local and face-to-face teaching and learning, but most will find that they need to offer some form of distance or mixed-mode education, some of which will be international. He believes that there will continue to be publicly funded dual-mode and open universities but that there will also be more for-profit, adult-centred universities. He envisages an increase in university-university and university-industry consortia and partnerships, some of which will be transnational, and that there may also be totally new forms of multinational or global university, the characteristics and dimensions of which can only be guessed at.

The new world economy is driven by technology. Innovations are taking place around the world and with information and communication systems, spreading rapidly. The information age will continue, world markets will draw closer, and the world will become more inclusive. However, this new world economy is not just about technology. It is a revolution in how people live, work and learn. To access lifelong and continuing education we no longer need to attend on-campus classes; we can learn wherever and whenever we wish and with a mobile 'phone or a laptop we can tap into learning networks that are far faster and more complex than anything previously experienced.

Those who understand the nature of this revolution, those who can see that knowledge is no longer hierarchical and fixed but open, lateral and dynamic, and those who have a mindset of network building, are at a great advantage. Those who have difficulties with these concepts will surely be at a

loss.

As this paper has aimed to show, technology alone cannot determine the course of international distance education. Many other factors come into play. Different societies have different capacities to use the technology and the new learning. Providers can provide a broad range of educational programs and services but the approaches have to be collaborative, reflective and culturally appropriate. The needs and circumstances of the learners must be uppermost in the minds of the providers. The providers also need to progress in their thinking beyond the 'transmission' model of the traditional classroom or correspondence education and into the new world of e-learning. They need to provide opportunities for complex information processing and knowledge construction by the learners according to their own individual needs and knowledge of the world. In summary, globalized distance and online education calls for:

- Cohesive internationally relevant curricula, courses and course materials that are appropriate to the students' requirements, career aspirations, culture and circumstances.
- Student-centred learning activities.
- Interaction and dialogue.
- On-demand support services and prompt feedback.
- Flexibility in time and place of study.
- Faculty development and rejuvenation.
- Quality assurance of teaching and learning.
- Transnational accreditation and recognition.
- Careful costing and a sound business plan.

For many higher education institutions, putting into practice many of the ideas discussed in the above paper requires a total transformation or paradigm shift that involves:

- Structural change: improving ways in which institutions are led, managed and organized and establishing new networks and alliances.
- Procedural change: redirecting the institutional operations and organizational tasks, roles and responsibilities.
- Educational change: reviewing and revitalizing the curriculum, pedagogy and educational products and services.
- Technological change: changing the systems and tools through which jobs are done.
- Cultural change: changing the academic climate, faculty's values and working relationships.

Institutions without transformational leaders or whose managers' primary concerns are maintaining the status quo, jumping onto the latest technology bandwagon, cutting costs, or making profits, will find it difficult to achieve such changes. Achieving the full potential of borderless learning depends upon making the right judgements about how to develop and deliver 'built-to-demand' courses and

programmes, how best to ensure access and equity, how best to form the necessary alliances and how best to take on the competition.

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